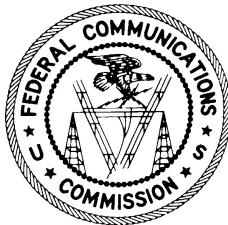


Voice Telephone Services: Status as of December 31, 2017

Industry Analysis Division
Office of Economics and Analytics
August 2019



This report is available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, SW, Washington, DC. Copies may be purchased by contacting Best Copy and Printing, Inc., 445 12th Street, SW, Room CY-B402, Washington, DC 20554, telephone (800) 378-3160, or via their website at www.bcpiweb.com. The report can also be downloaded from the Voice Telephone Services Reports webpage at <https://www.fcc.gov/voice-telephone-services-report>.

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SUPPLEMENTAL MATERIALS AVAILABLE ON FCC WEBSITE

- Table 1 and Table 2 in Excel format (national-level data back to December 2016)
- State-level Subscriptions table in Excel format (data back to December 2016)
- State-level Number of Providers table in Excel format (data back to December 2016)
- County-level Subscriptions information in Excel format (data back to June 2014)
- CSV-format file of consistent data series published for 2008-2017
- Crosswalk to the report *Local Telephone Competition: Status as of December 31, 2013* in PDF format

Voice Telephone Services: Status as of December 31, 2017

Introduction

The Commission has used FCC Form 477 to collect subscribership information from providers of voice telephone services – the incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), and mobile voice providers – since December 1999. The Commission has required interconnected Voice over Internet Protocol (“interconnected VoIP”) service providers to report subscribership information since December 2008.¹ Also, starting with the data reported for 2014, Form 477 has been modified to distinguish “over-the-top” (colloquially, “bring your own broadband”) interconnected VoIP subscriptions from other interconnected VoIP subscriptions.²

This report summarizes the information collected about telephone services as of December 31, 2017.³

Comparison to Local Telephone Competition Report

This report previously was titled *Local Telephone Competition*. Reports under the earlier title summarized Form 477 data through December 31, 2013. Reports under the current title provide much of the summarized data as supplemental spreadsheet files, available at <https://www.fcc.gov/voice-telephone-services-report>. A crosswalk between data elements in this report and data elements in the *Local Telephone Competition* report is available at that page.

¹ The FCC’s rules (at 47 C.F.R. § 9.3) state:

An interconnected Voice over Internet Protocol (VoIP) service is a service that:

- (1) Enables real-time, two-way voice communications;
- (2) Requires a broadband connection from the user’s location;
- (3) Requires Internet protocol-compatible customer premises equipment (CPE); and
- (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.

We note that the current interpretation of element (4) of the definition excludes the VoIP services that Skype offers in the United States, and subscribers to those services are not reported on Form 477.

² The Technical Notes and the Glossary that appear at the end of this report provide more-detailed information about the current Form 477 and the meaning of terms used in this report. To be consistent with modifications to Form 477 that were adopted in 2013 (to be effective for reporting June 2014 and later data), and to avoid confusion, this report no longer uses the terms “standalone VoIP” and, by contrast, “broadband bundle.” Standalone VoIP in the earlier, *Local Telephone Competition*, reports has a different meaning from “over-the-top” VoIP in this report. In particular, subscriptions reported as standalone VoIP for December 2013 and earlier dates included over-the-top subscriptions as defined in this report and also video-plus-VoIP service subscriptions sold by cable TV system operators and other entities that own last-mile facilities to end-user premises. We note that, accordingly, 13% of total interconnected VoIP subscriptions were categorized as standalone VoIP in December 2013 and, by contrast, 10% of total interconnected VoIP subscriptions were categorized as over-the-top VoIP in December 2014.

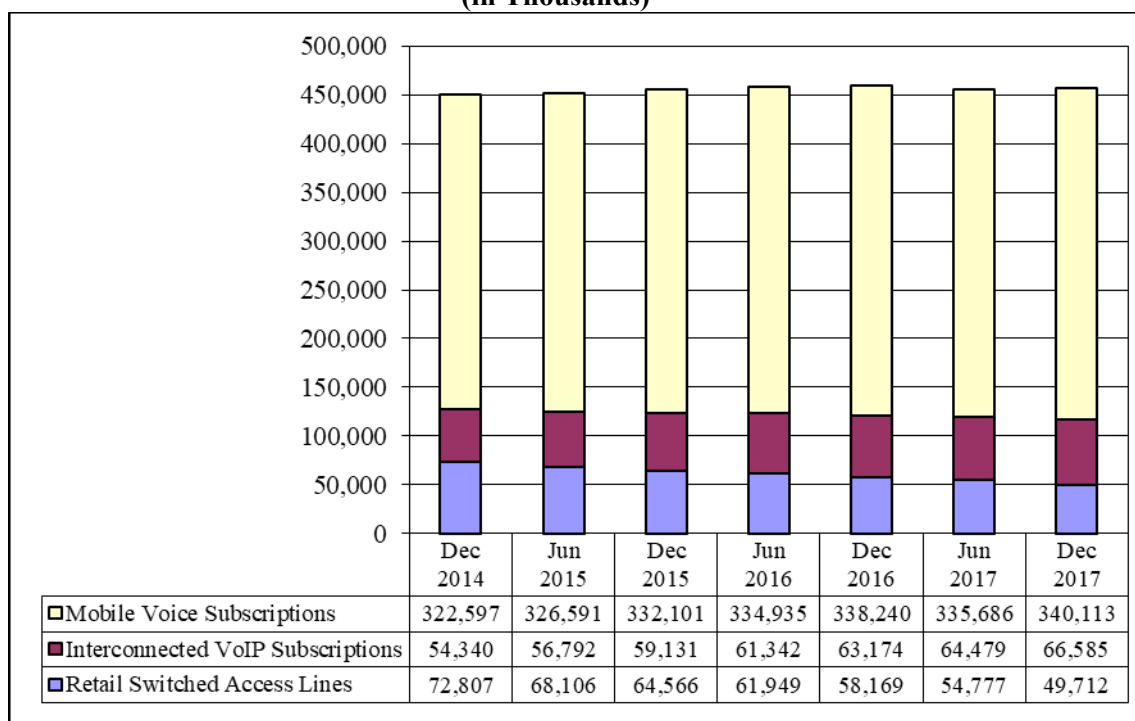
³ The presentation of mobile wireless telephone subscriber counts in this report does not constitute, or imply, Commission analysis of the extent to which wireline and mobile wireless telephone services are demand substitutes or complements in general or in any particular situation.

Retail Voice Telephone Service Connections

Retail voice telephone service customers are served by two wireline technologies – “end-user” switched access lines and interconnected VoIP “subscriptions” – and by mobile wireless subscriptions.

- In December 2017, the data shows that there were 50 million end-user switched access lines in service, 67 million interconnected VoIP subscriptions, and 340 million mobile subscriptions in the United States, or 456 million retail voice telephone service connections in total. See Figure 1.
- Over the three-year period presented in Figure 1, interconnected VoIP subscriptions increased at a compound annual growth rate of 7%, mobile voice subscriptions increased at a compound annual growth rate of 2%, and retail switched access lines declined at a compound annual growth rate of 12% per year.⁴

Figure 1
Retail Voice Telephone Service Connections, 2014-2017
(in Thousands)



Some previously published data have been revised.

- Of the 116 million wireline retail voice telephone service connections (including both switched access lines and interconnected VoIP subscriptions) in December 2017, 60 million (or 52%) were residential connections and 56 million (or 48%) were business connections.⁵ See Figure 2.

⁴ The compound annual growth rate (CAGR) is a smoothed rate of growth calculated in three steps. First, divide the ending value by the beginning value. Second, raise the result of that division to a power equal to one divided by the number of years in the period (in this case, 3 years, so the power is 1/3). Third, subtract the number one from the result of the second step.

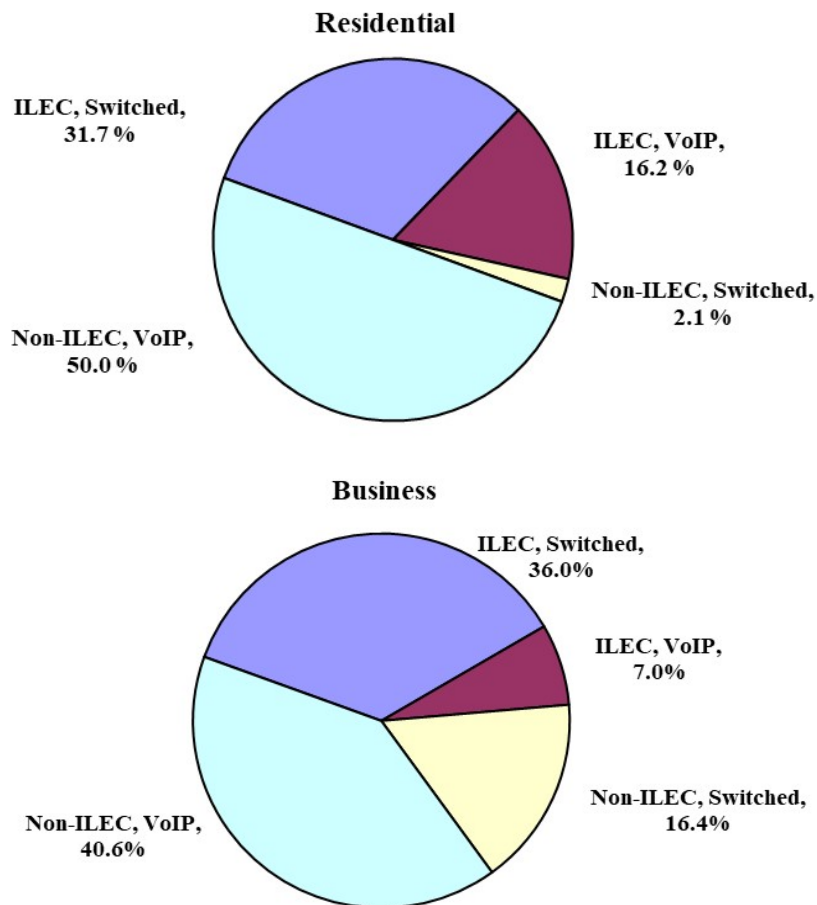
⁵ FCC Form 477 does not distinguish between residential and business subscribers to mobile voice service. The information that Form 477 collects about mobile broadband service is summarized elsewhere; see *Internet Access Services: Status as of June 30, 2017*, available at <https://www.fcc.gov/reports-research/reports/internet-access-services-reports/internet-access-services-reports>.

Figure 2
Wireline Retail Voice Telephone Service Connections by Technology, Regulatory Status,
and Customer Type as of December 31, 2017 (in Thousands)

Total	Switched Access Lines	Interconnected VoIP	Total
ILEC	39,309	13,713	53,022
Non-ILEC	10,403	52,873	63,276
Total	49,712	66,585	116,298
Residential			
ILEC	19,180	9,785	28,964
Non-ILEC	1,254	30,222	31,476
Residential Total	20,434	40,006	60,440
Business			
ILEC	20,129	3,928	24,057
Non-ILEC	9,149	22,651	31,800
Business Total	29,278	26,579	55,857

Figures may not sum to totals due to rounding.

ILEC – Incumbent local exchange carrier. A voice service affiliate of an ILEC that is operating outside of the ILEC’s traditional service area (“study area”) is a Non ILEC.



- Cross-classified by technology and the retailer’s regulatory status in Figure 2, the 60 million wireline residential connections in December 2017 were: 31.7% ILEC switched access lines, 50.0% non-ILEC interconnected VoIP subscriptions, 16.2% ILEC interconnected VoIP subscriptions, and 2.1% non-ILEC switched access lines. Similarly, the 56 million wireline business connections were: 36.0% ILEC switched access lines, 40.6% non-ILEC interconnected VoIP subscriptions, 7.0% ILEC interconnected VoIP subscriptions, and 16.4% non-ILEC switched access lines.

Retail Service Relationships

The revised Form 477 program collects two types of information about retail service relationships.

- Interconnected VoIP service retailers distinguish over-the-top (“OTT”) interconnected VoIP subscriptions—which, in the revised Form 477 program, means that the VoIP service end user has purchased (or has use of) a broadband connection from an entity that is not affiliated with the VoIP service retailer—by contrast to all other interconnected VoIP subscriptions. See Figure 3.
- Retailers of switched access lines and retailers of interconnected VoIP service distinguish between sales to end users who do not also purchase Internet access from them (including affiliates) and sales to end users who do purchase both these services. See Figure 4.

Figure 3
Interconnected VoIP Subscribership by Reported Service Features, Regulatory Status,
and Customer Type as of December 31, 2017 (in Thousands)

Total	Over-the-Top (OTT)	All Other VoIP	Total
ILEC	71	13,642	13,713
Non-ILEC	8,714	44,159	52,873
Total	8,784	57,801	66,585
Residential			
ILEC	3	9,782	9,785
Non-ILEC	2,097	28,125	30,222
Residential Total	2,100	37,907	40,006
Business			
ILEC	68	3,860	3,928
Non-ILEC	6,617	16,034	22,651
Business Total	6,684	19,895	26,579

Figures may not sum to totals due to rounding.

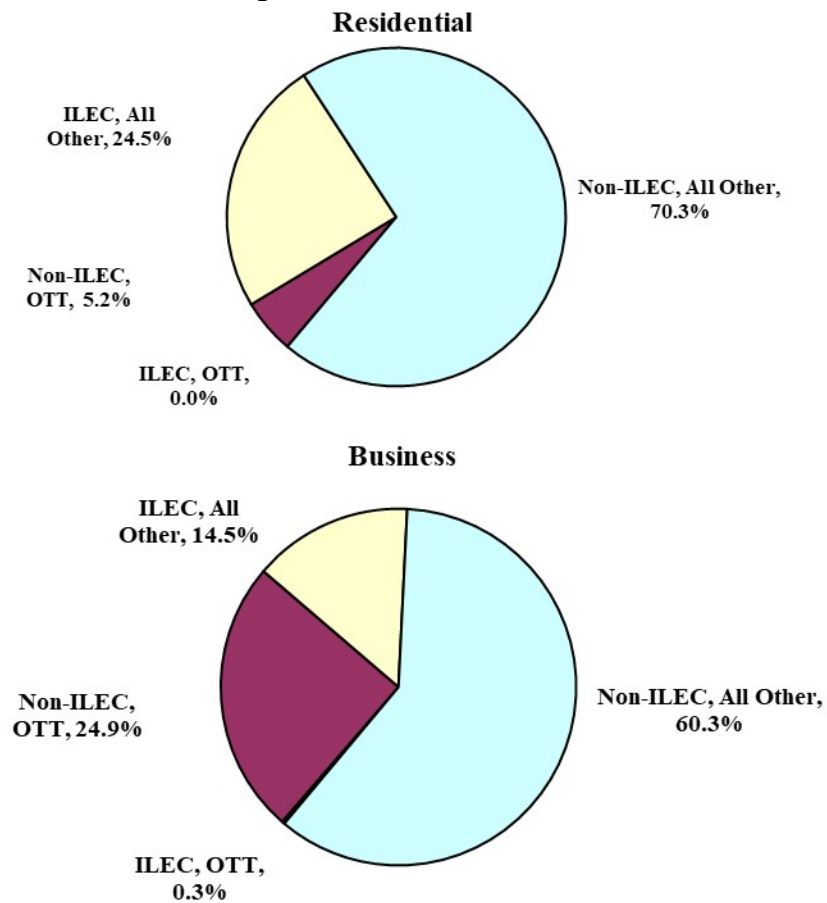
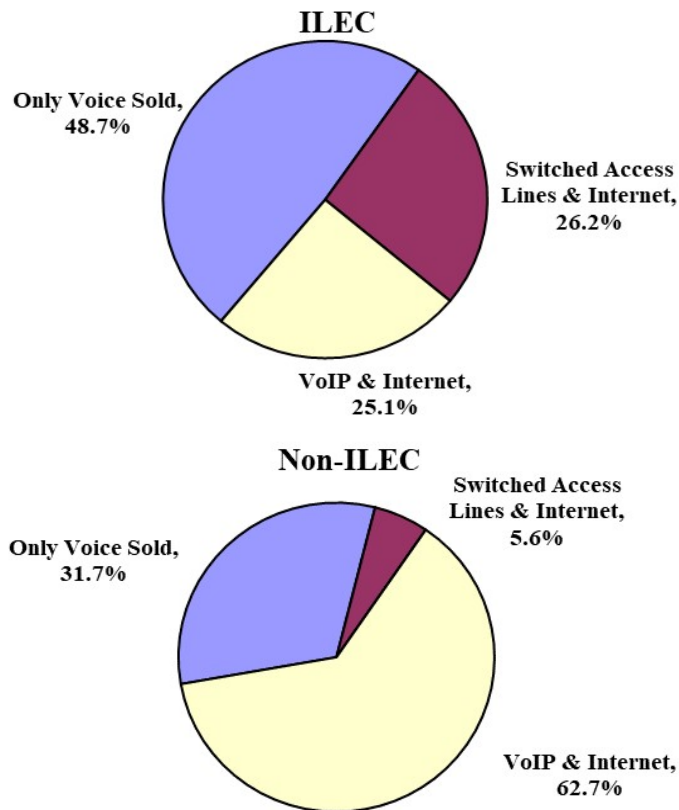


Figure 4
Retail Relationships of Wireline Voice Telephone Service with Internet Access Service
by Regulatory Status as of December 31, 2017 (in Thousands)

Total Sold to End Users	ILEC	Non-ILEC	Total
Switched Access Lines	39,309	10,403	49,712
Over-the-Top VoIP	71	8,714	8,784
All Other VoIP	13,642	44,159	57,801
Total	53,022	63,276	116,298
Internet Also Sold			
Switched Access Lines	13,918	3,558	17,475
Over-the-Top VoIP	0	0	0
All Other VoIP	13,307	39,650	52,957
Both Sold Total	27,225	43,208	70,432
Internet Not Also Sold			
Switched Access Lines	25,391	6,845	32,237
Over-the-Top VoIP	71	8,714	8,784
All Other VoIP	335	4,509	4,844
Only Voice Total	25,797	20,068	45,866

Figures may not sum totals due to rounding.



Detailed Voice Telephone Services Data

The remainder of this document consists of national information, technical notes, and a glossary of terms.

- Table 1 summarizes national-level voice telephone service subscription data for December 2017, and also for June 2017 and December 2016, for individual data elements collected by FCC Form 477.
- Table 2 shows the number of entities that reported the national-level subscription data for December 2017, and also for June 2017 and December 2016.

Table 1 and Table 2 are available in Excel format at <https://www.fcc.gov/voice-telephone-services-report>. Also available at that page are:

- State-level Subscriptions table in Excel format (data back to December 2016)
- State-level Number of Providers table in Excel format (data back to December 2016)
- County-level Subscriptions information in Excel format (data back to June 2014)
- CSV-format file of the consistent data series that are available back to December 2008, when interconnected VoIP retailers were first required to report subscription information on Form 477.

Earlier data, back to December 1999, are available in the Local Telephone Competition reports at <https://www.fcc.gov/general/local-telephone-competition-reports>. However, researchers who consider using the complete data series for trend analysis should recall the discontinuities in the data that arise from Form 477 modifications over time.

- Between December 1999 and December 2004, Form 477 collected state-by-state data only from local exchange carriers with at least 10,000 end-user switched access lines in service in the state, and from facilities-based mobile voice carriers with at least 10,000 mobile voice subscriptions in service in the state.
- Prior to December 2008, interconnected VoIP service retailers were not required to submit Form 477, but an unknown amount of interconnected VoIP service was included along with the switched access lines reported by some Form 477 filers.
- As discussed earlier in this report, the category standalone interconnected VoIP that was reported from December 2008 to December 2013 is different (that is, includes more subscriptions) than the category over-the-top interconnected VoIP that is reported starting with the June 2014 data.⁶

⁶ See footnote 2, above.

Table 1. Voice Subscriptions (in Thousands) - Total for US

Reference	Data element	Dec 2017	June 2017	Dec 2016
1	Mobile telephony	340,113	335,686	338,240
2	Directly-billed or prepaid	301,362	296,494	296,660
3	Not directly-billed or prepaid	38,752	39,192	41,580
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	116,298	119,256	121,343
5	Incumbent LECs	53,022	55,786	58,262
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	63,276	63,470	63,081
7	Consumer-grade service	60,440	62,631	64,426
8	Incumbent LECs	28,964	31,094	32,637
9	Other (Non-ILECs)	31,476	31,537	31,789
10	Business & Government-grade service	55,857	56,625	56,917
11	Incumbent LECs	24,057	24,692	25,625
12	Other (Non-ILECs)	31,800	31,933	31,292
13	Local exchange telephone service (Switched Access Lines)	49,712	54,777	58,169
14	Incumbent LECs	39,309	42,401	45,245
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	10,403	12,376	12,924
16	Consumer-grade service	20,434	22,502	24,152
17	Incumbent LECs	19,180	21,088	22,649
18	Other (Non-ILECs)	1,254	1,413	1,503
19	Business & Government-grade service	29,278	32,275	34,017
20	Incumbent LECs	20,129	21,313	22,596
21	Other (Non-ILECs)	9,149	10,962	11,421
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	66,585	64,479	63,174
23	Incumbent LECs	13,713	13,385	13,016
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	52,873	51,095	50,158
25	Consumer-grade service	40,006	40,130	40,274
26	Incumbent LECs	9,785	10,006	9,988
27	Other (Non-ILECs)	30,222	30,123	30,286
28	Business & Government-grade service	26,579	24,349	22,900
29	Incumbent LECs	3,928	3,378	3,029
30	Other (Non-ILECs)	22,651	20,971	19,871
31	Over-the-top interconnected VoIP	8,784	7,715	7,394
32	Incumbent LECs	71	96	41
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	8,714	7,619	7,353
34	Consumer-grade service	2,100	2,200	2,647
35	Incumbent LECs	3	3	38
36	Other (Non-ILECs)	2,097	2,197	2,608
37	Business & Government-grade service	6,684	5,515	4,747
38	Incumbent LECs	68	93	3
39	Other (Non-ILECs)	6,617	5,422	4,744
40	All Other interconnected VoIP	57,801	56,766	55,778
41	Incumbent LECs	13,642	13,289	12,975
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	44,159	43,477	42,803
43	Consumer-grade service	37,907	37,928	37,628
44	Incumbent LECs	9,782	10,003	9,950
45	Other (Non-ILECs)	28,125	27,925	27,678
46	Business & Government-grade service	19,895	18,837	18,150
47	Incumbent LECs	3,860	3,285	3,026
48	Other (Non-ILECs)	16,034	15,552	15,125
49	Local exchange telephone service by last-mile delivery medium	49,712	54,777	58,169
50	Fiber-to-the-premises	5,930	6,072	6,140
51	Incumbent LECs	3,886	3,839	3,803
52	Other (Non-ILECs)	2,043	2,234	2,338
53	Coaxial cable	639	781	886
54	Incumbent LECs	59	58	60
55	Other (Non-ILECs)	579	723	826
56	Terrestrial fixed wireless	27	27	510

Table 1. Voice Subscriptions (in Thousands) - Total for US

Reference	Data element	Dec 2017	June 2017	Dec 2016
57	Incumbent LECs	15	18	501
58	Other (Non-ILECs)	13	8	9
59	Copper local loop	43,117	47,897	50,633
60	Incumbent LECs	35,349	38,486	40,882
61	Other (Non-ILECs)	7,768	9,411	9,751
62	All Other interconnected VoIP by last-mile delivery medium	57,801	56,766	55,778
63	Fiber-to-the-premises	16,112	7,871	7,447
64	Incumbent LECs	6,072	5,623	5,414
65	Other (Non-ILECs)	10,040	2,249	2,033
66	Coaxial cable	28,156	35,059	34,626
67	Incumbent LECs	6	6	5
68	Other (Non-ILECs)	28,150	35,052	34,621
69	Terrestrial fixed wireless or satellite	116	81	94
70	Incumbent LECs	0	0	0
71	Other (Non-ILECs)	116	81	94
72	Copper local loop	13,417	13,755	13,610
73	Incumbent LECs	7,564	7,660	7,556
74	Other (Non-ILECs)	5,853	6,095	6,054
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	10,403	12,376	12,924
76	Provided over owned last-mile facilities	3,783	4,244	4,530
77	Provided over UNE-L obtained from unaffiliated entity	1,689	1,783	2,318
78	Provided over other services obtained from unaffiliated entity	4,931	6,348	6,076
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	5,159	5,348	5,606
80	Wholesale lines	3,295	3,363	3,483
81	UNE-L	1,863	1,985	2,123
82	Local exchange telephone service and long-distance service	49,712	54,777	58,169
83	Consumer-grade service	20,434	22,502	24,152
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	12,425	13,623	14,803
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	6,754	7,465	7,846
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	1,034	1,167	1,235
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	221	247	268
88	Business & Government-grade service	29,278	32,275	34,017
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	10,919	11,519	12,147
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	9,210	9,794	10,449
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	7,102	8,010	8,172
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	2,046	2,953	3,249
93	End user buys local exchange telephone service and Internet access service from same entity	17,475	20,197	21,317
94	End user buys both services from incumbent LEC or affiliates	13,918	15,962	16,970
95	End user buys both services from Non-ILEC or affiliates	3,558	4,235	4,347
96	End user buys interconnected VoIP and Internet access service from same entity	52,957	52,107	50,976
97	End user buys both services from incumbent LEC or affiliates	13,307	13,234	12,938
98	End user buys both services from Non-ILEC or affiliates	39,650	38,873	38,038

Table 2. Number of Providers Reporting Voice Subscriptions - Total for US

Reference	Data element	Dec 2017	June 2017	Dec 2016
1	Mobile telephony	88	118	122
2	Directly-billed or prepaid	87	115	119
3	Not directly-billed or prepaid	12	18	23
4	Wireline End-User Switched Access Lines and Interconnected VoIP Subscriptions	1,766	1,725	1,698
5	Incumbent LECs	732	737	737
6	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,332	1,285	1,256
7	Consumer-grade service	1,229	1,243	1,246
8	Incumbent LECs	731	736	736
9	Other (Non-ILECs)	787	791	784
10	Business & Government-grade service	1,670	1,621	1,593
11	Incumbent LECs	725	732	732
12	Other (Non-ILECs)	1,236	1,182	1,149
13	Local exchange telephone service (Switched Access Lines)	994	1,015	1,020
14	Incumbent LECs	728	734	734
15	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	508	520	523
16	Consumer-grade service	895	913	914
17	Incumbent LECs	728	734	734
18	Other (Non-ILECs)	402	408	405
19	Business & Government-grade service	976	995	1,002
20	Incumbent LECs	723	730	730
21	Other (Non-ILECs)	490	500	503
22	Interconnected VoIP Subscriptions - Note: Includes both Over-the-top (OTT) and All Other sub-categories.	1,138	1,081	1,047
23	Incumbent LECs	118	108	102
24	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	1,090	1,040	1,006
25	Consumer-grade service	541	528	524
26	Incumbent LECs	60	52	50
27	Other (Non-ILECs)	505	497	492
28	Business & Government-grade service	1,045	984	948
29	Incumbent LECs	108	101	94
30	Other (Non-ILECs)	1,005	949	913
31	Over-the-top interconnected VoIP	683	631	591
32	Incumbent LECs	27	20	18
33	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	673	624	582
34	Consumer-grade service	170	167	162
35	Incumbent LECs	12	7	10
36	Other (Non-ILECs)	163	163	155
37	Business & Government-grade service	637	586	542
38	Incumbent LECs	22	18	13
39	Other (Non-ILECs)	632	581	538
40	All Other interconnected VoIP	672	652	652
41	Incumbent LECs	108	101	95
42	Other (Non-ILECs) - Note: ILEC voice-service affiliate operating outside ILEC's study area is included here.	626	613	614
43	Consumer-grade service	434	414	416
44	Incumbent LECs	54	47	44
45	Other (Non-ILECs)	402	387	389
46	Business & Government-grade service	608	583	581
47	Incumbent LECs	100	95	88
48	Other (Non-ILECs)	568	549	548
49	Local exchange telephone service by last-mile delivery medium	994	1,015	1,020
50	Fiber-to-the-premises	738	721	712
51	Incumbent LECs	578	566	561
52	Other (Non-ILECs)	358	346	329
53	Coaxial cable	82	83	89
54	Incumbent LECs	20	21	19
55	Other (Non-ILECs)	72	72	78
56	Terrestrial fixed wireless	72	73	74

Table 2. Number of Providers Reporting Voice Subscriptions - Total for US

Reference	Data element	Dec 2017	June 2017	Dec 2016
57	Incumbent LECs	42	39	44
58	Other (Non-ILECs)	42	45	41
59	Copper local loop	800	838	849
60	Incumbent LECs	601	621	629
61	Other (Non-ILECs)	329	350	353
62	All Other interconnected VoIP by last-mile delivery medium	672	652	652
63	Fiber-to-the-premises	411	391	379
64	Incumbent LECs	92	88	77
65	Other (Non-ILECs)	372	356	348
66	Coaxial cable	213	209	213
67	Incumbent LECs	11	10	9
68	Other (Non-ILECs)	208	207	211
69	Terrestrial fixed wireless or satellite	226	211	201
70	Incumbent LECs	10	7	12
71	Other (Non-ILECs)	218	206	192
72	Copper local loop	237	225	218
73	Incumbent LECs	51	48	46
74	Other (Non-ILECs)	208	199	194
75	Non-Incumbent LEC local exchange telephone service by means of provisioning	508	520	523
76	Provided over owned last-mile facilities	376	380	371
77	Provided over UNE-L obtained from unaffiliated entity	113	121	124
78	Provided over other services obtained from unaffiliated entity	197	212	218
79	Incumbent LEC local exchange telephone service provided to unaffiliated carriers for resale	49	52	47
80	Wholesale lines	47	50	45
81	UNE-L	11	13	12
82	Local exchange telephone service and long-distance service	994	1,015	1,020
83	Consumer-grade service	895	913	914
84	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	676	679	673
85	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	678	679	679
86	Non-ILEC is preferred long-distance carrier for its local exchange service customer	378	377	372
87	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	266	277	282
88	Business & Government-grade service	976	995	1,002
89	Incumbent LEC is preferred long-distance carrier for its local exchange service customer	672	676	670
90	Incumbent LEC is not preferred long-distance carrier for its local exchange service customer	654	662	656
91	Non-ILEC is preferred long-distance carrier for its local exchange service customer	450	453	451
92	Non-ILEC is not preferred long-distance carrier for its local exchange service customer	313	328	332
93	End user buys local exchange telephone service and Internet access service from same entity	894	906	906
94	End user buys both services from incumbent LEC or affiliates	707	713	713
95	End user buys both services from Non-ILEC or affiliates	421	425	418
96	End user buys interconnected VoIP and Internet access service from same entity	607	590	591
97	End user buys both services from incumbent LEC or affiliates	102	93	89
98	End user buys both services from Non-ILEC or affiliates	563	552	552

Technical Notes

General

Detailed information about the current Form 477 reporting requirements is available at <https://www.fcc.gov/general/form-477-resources-filers>.

See Glossary for definitions of terms used in this report.

Counting lines and subscribers

- Form 477 counts both switched access lines and interconnected VoIP subscriptions as the maximum number of calls that may be active, simultaneously, from the end user's location under the purchased service plan. All VoIP subscriptions discussed in this report are interconnected VoIP subscriptions.
- Form 477 data may not count all VoIP phone connections to Internet Protocol Private Branch Exchange (IP PBX) equipment that is owned by business end users because of the variety of ways the IP PBX may connect to the public switched telephone network.

Holding company-subsidiary relationships

- When counting service providers that report voice telephone service in a particular geography, we count a holding company or common-control entity no more than once in any specified sub-category of total providers.
- Nationwide counts of providers are unique counts for any specified sub-category of total providers (for example, all non-ILECs or all interconnected VoIP providers); an entity operating in multiple states is counted only once.

ILEC-CLEC affiliations

- If a CLEC is affiliated with an ILEC and reports some end-user switched access lines or interconnected VoIP subscriptions in the ILEC's service area in the state, then the switched access lines or interconnected VoIP subscriptions reported by the CLEC are allocated between the ILEC and non-ILEC categories based on staff estimates.

Mobile voice subscriptions

- Commercial mobile radio service (CMRS) carriers that own or operate wireless networks report both their retail voice service subscriptions and the retail subscriptions of the mobile voice service resellers that use their network. Mobile voice service resellers do not file Form 477.

UNE-Platform lines replaced by commercial agreements

- UNE-Platform (UNE-P) was the combination of ILEC loop UNE, switching UNE, and transport UNE. The Commission directed CLECs to migrate their retail customers served by UNE-P to an alternative arrangement within 12 months of the effective date of the *Triennial Review Remand Order*, that is, by March 11, 2006. See C.F.R. § 51.319(d)(2)(ii). Such lines are reported on Form 477 as ILEC wholesale lines provided to unaffiliated providers for resale.

Glossary

Term	Definition
All Other interconnected VoIP	Interconnected VoIP service other than OTT interconnected VoIP. (See the definition of OTT VoIP, below.)
Circuit switching	A method of completing electronic communications in which a transmission path is established for dedicated use by a communication; the basis of the public switched telephone network (PSTN).
Coaxial cable	The technology widely used by cable system operators to terminate their services at the end user's premises.
Copper local loop	The technology widely used by telephone companies to terminate their service at the end user's premises.
CLEC	Competitive Local Exchange Carrier: A local exchange carrier (LEC) that operates within the traditional service area of an unaffiliated incumbent LEC.
End users	Residential, business, institutional, or government entities that use services for their own purposes and who do not resell such services to other entities.
Fixed wireless service	A radio communication service between specified fixed points.
FTTP or FTTH	Fiber to the Premises (Home): A network access architecture in which optical fiber is deployed all the way to the customer's premises (home).
Internet access service	Service that provides end users access to the Internet.
ILEC	Incumbent Local Exchange Carrier: A company or cooperative that was providing telephone service in a localized area, typically on a monopoly basis, prior to enactment of the Telecommunications Act of 1996.
Internet protocol or IP	A language and set of formal rules that govern how packets transit the Internet.
Interconnected VoIP or iVoIP	A service that enables real-time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.
LEC	Local Exchange Carrier: A company that provides telephone service within a localized area and access services that connect its customers to long-distance (Interexchange Carrier) networks.
Local loop	The physical connection between the customer's premises and the telephone company's local switching office, typically provided using copper, fiber, or a combination of copper and fiber facilities.
Mobile wireless service	A radio communication service between mobile and fixed stations, or between mobile stations.

Non-ILEC	Any provider of communications services who does not have ILEC regulatory status. A voice-service affiliate of an ILEC that is operating outside the ILEC's traditional service area ("study area") is a Non-ILEC.
OTT interconnected VoIP	Over-the-top interconnected VoIP: Service delivered to the end-user customer's premises over a high-capacity connection that the customer obtains (that is, buys), or has the use of, from an entity not affiliated with the interconnected VoIP service provider. (Colloquially, "bring-your-own-broadband.")
PBX	Private Branch Exchange: A communications switch that is owned or leased by the service provider's end-user customer and generally located on the customer's premises.
Packet switching	A method of completing electronic communications in which the information is disassembled into discrete packets that are transmitted independently and later reassembled; IP is an example.
Retail wireline voice telephone service	Switched access lines and interconnected VoIP subscriptions for which an end user is the customer.
Switched access line	A service connection between an end user and the local telephone company's switch; the basis of plain old telephone service (POTS).
UNE	Unbundled Network Element: A physical or functional element of an ILEC network that must be provided to a CLEC at a cost-based price, as provide for in the Telecommunications Act of 1996.
UNE-L	UNE-Loop: An ILEC unbundled local loop provided to a CLEC at a cost-based price.
Wholesale switched access lines	Local telephone service provided to an unaffiliated telephone company, which resells the service to end users; typically provided by an ILEC to a CLEC.

Customer Response

Publication: *Voice Telephone Services: Status as of December 31, 2017*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis Division of the FCC's Office of Economics and Analytics.

1. Please check the category that best describes you:
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2. Please rate the report:

	Excellent	Good	Satisfactory	Poor	No opinion
Data accuracy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Timeliness of data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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3. Overall, how do you rate this report?

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